

Aphid Management with Seed and Foliar Insecticide Treatments - Syngenta - 1.

Trial ID: 08-ARC-N8-Syngenta-1 Location: Agronomy Res. Center

Investigator: Bryan Young, Professor, Southern Illinois University, bgyoung@siu.edu
 City State Zip Country: Carbondale IL 62901 USA
 Trial Status: FINAL Initiation Date: 10-22-07

Objectives: Evaluate Cruiser followed by Warrior, and Warrior followed by Warrior, compared to competitive treatments for BYDV control in wheat.

Crop 1: TRZAW wheat, winter Variety: AgriPro Branson
 Planting Method: Seeded Planting Date: 10-22-07
 Rate, Unit: 1.3 mil. S/A Depth, Unit: 1.0 IN
 Row Spacing, Unit: 7.5 IN Seed Bed: MEDIUM/TRASHY
 Soil Moisture: ABOVE NORMAL

Plot Width, Unit: 5 FT Site Type: FIELD
 Plot Length, Unit: 24 FT Tillage Type: NO-TILL
 Replications: 4 Study Design: Randomized Complete Block

Prior Crops, Year
 1. ZEAMX 2007

Field Prep./Maintenance: N 90 LB/A as 32% UAN applied on 3-25-08

% OM: 1.6 Texture: SILT LOAM
 pH: 6.5 Soil Name: WEIR
 CEC: 8.8 Fert. Level: P1: 83 LB/A, K: 282 LB/A

Application Description

	A	B	C
Application Date:			04-23-08
Time of Day:			18:00
Application Method:	SEEDTRT	Spray	Spray
Application Timing:		FALLTHLD	SPRGTHLD
Application Placement:		BROFOL	BROFOL
Applied By:			NRJ
Air Temperature, Unit:			78 F
% Relative Humidity:			53
Wind Velocity, Unit:			1 MPH
Dew Presence (Y/N):			N
Soil Temperature, Unit:			69 F
Soil Moisture:			ABONOR
% Cloud Cover:			90

Crop stage at application: 04-23-08
 Height Min, Max (inch): FK8
 14 16

Pest Stage At Each Application

Application Date: 04-23-08

Application Equipment

	Seedtrt	CO2 sprayer	CO2 sprayer
Operating Pressure:		30 PSI	30 PSI
Nozzle Type:		Flat fan	Flat fan
Nozzle Size:		XR 8002	XR 8002
Boom Length, Unit:		5 FT	5 FT
Spray Volume, Unit:		15 GPA	15 GPA

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Pest Code									TRZAW	TRZAW	TRZAW	TRZAW	TRZAW	TRZAW	TRZAW	
Crop Code									07-01-08	07-01-08	07-01-08	11-15-07	11-15-07	04-23-08	05-12-08	
Rating Date									Moisture	Test wt.	Yield	Stand	Vigor	Aphids	Aphids	
Rating Data Type									Percent	lb/bu	bu/A	Percent	1-5	1 sqft	1 sqft	
Rating Unit																
Rating Timing																
Trt-Eval Interval									0 DA-C 19 DA-C							
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code							
1	NONTREATED									12.1 ab	53.3 a	74 ab	84 a	3.0 a	19 a	1 b
2	DIVIDEND EXTREME 0.96 FS					2 fl oz/cwt		SEEDTRT	A	12.0 b	52.7 a	72 b	83 a	3.0 a	17 a	1 ab
3	DIVIDEND EXTREME 0.96 FS					2 fl oz/cwt		SEEDTRT	A	12.0 ab	53.6 a	83 a	83 a	3.0 a	20 a	2 a
3	CRUISER 5 FS					1 fl oz/cwt		SEEDTRT	A							
4	DIVIDEND EXTREME 0.96 FS					2 fl oz/cwt		SEEDTRT	A	12.1 ab	53.3 a	79 ab	84 a	3.0 a	22 a	0 b
4	WARRIOR	1 CS		0.0195 lb ai/a		2.5 fl oz/a		FALLTHLD	B							
4	WARRIOR	1 CS		0.0195 lb ai/a		2.5 fl oz/a		SPRGTHLD	C							
5	DIVIDEND EXTREME 0.96 FS					2 fl oz/cwt		SEEDTRT	A	12.4 a	54.5 a	83 a	85 a	3.0 a	14 a	0 b
5	CRUISER 5 FS					1 fl oz/cwt		SEEDTRT	A							
5	WARRIOR	1 CS		0.0195 lb ai/a		2.5 fl oz/a		SPRGTHLD	C							
LSD (P=.05)										0.39	2.42	10.4	7.6	0.00	7.9	0.9
Replicate F										0.174	0.049	0.264	1.983	0.000	1.125	0.595
Replicate Prob(F)										0.9119	0.9851	0.8501	0.1704	1.0000	0.3777	0.6305
Treatment F										1.883	0.692	2.230	0.179	0.000	1.296	3.126
Treatment Prob(F)										0.1783	0.6113	0.1267	0.9447	1.0000	0.3259	0.0560

Means followed by same letter do not significantly differ (P=.05, LSD)

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Trial ID: 08-ARC-N8-Syngenta-1 Location: Agronomy Res. Center

Pest Code		
Crop Code	TRZAW	TRZAW
Rating Date	04-30-08	06-09-08
Rating Data Type	BYD	BYD
Rating Unit	Percent	Percent
Rating Timing		
Trt-Eval Interval		

Trt No.	Treatment Name	Form Conc	Form Type	Form Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code		
1	NONTREATED									2 a	2 a
2	DIVIDEND EXTREME 0.96 FS					2 fl oz/cwt		SEEDTRT	A	1 a	0 b
3	DIVIDEND EXTREME 0.96 FS					2 fl oz/cwt		SEEDTRT	A	1 a	0 b
3	CRUISER 5 FS					1 fl oz/cwt		SEEDTRT	A		
4	DIVIDEND EXTREME 0.96 FS					2 fl oz/cwt		SEEDTRT	A	1 a	1 ab
4	WARRIOR	1 CS		0.0195 lb ai/a		2.5 fl oz/a		FALLTHLD	B		
4	WARRIOR	1 CS		0.0195 lb ai/a		2.5 fl oz/a		SPRGTHLD	C		
5	DIVIDEND EXTREME 0.96 FS					2 fl oz/cwt		SEEDTRT	A	1 a	0 b
5	CRUISER 5 FS					1 fl oz/cwt		SEEDTRT	A		
5	WARRIOR	1 CS		0.0195 lb ai/a		2.5 fl oz/a		SPRGTHLD	C		
LSD (P=.05)										1.4	1.5
Replicate F										1.146	1.963
Replicate Prob(F)										0.3703	0.1734
Treatment F										1.078	2.284
Treatment Prob(F)										0.4100	0.1203

Means followed by same letter do not significantly differ (P=.05, LSD)

Trial Comments

1. Protocol: Syngenta (TH150X).
2. BYD incidence and severity, aphid counts in each plot at application B+C and 14 da C
3. Yield, test weight and grain moisture.
4. Stand = Percent of a full stand. Vigor = Combination of plant size and color.
5. Aphid populations were monitored closely with very few aphids found, thus aphid counts were delayed, but were finally counted in advance of cold weather, still no aphids were found in any plots when counted on 12-6-2007. The FALLTHLD application was not made as the threshold was never met. No detection of BYD symptoms as of April 7, 2008. The study was repeated, see Trial ID 08-ARC-N9-Syngenta-2.
6. Blanket application of Harmony Extra (0.5 oz/A + 2,4-De (0.5 pt/A) + NIS (0.25%) was applied to all plots on 4-22-08.
7. Test wt. = Test weight. BYD = Barley yellow dwarf. DA-C = Days after SPRGTHLD application.
8. Harvested 07-02-08, (6) 7.5 inch rows by 20 ft.